E. flavicinetata.—Lochinver; not common. Its usual foodplant, Saxifraga aizoides, is not found there, and the larval pabulum was no doubt Sedum sp.

Xanthorhoë montanata.\*-Common and very variable; some

of the forms resemble ab. shetlandica, Weir.

X. fluctuata.—I only saw one example at Lochinver; this is a very dark example of ab. neapolisata, Mill.

X. galiata.—One example only; Lochinver, Mr. Whittle.

X. sociata.\*—Abundant; not showing any approach to the

Hebridean form obscurata, South.

X. tristata.—Lochinver, not common; a black and white form resembling the Yorkshire specimens, and not the smoky brown ordinary Scottish form.

(To be continued.)

## NOTES ON BRITISH NEUROPTERA IN 1921.

By W. J. Lucas, B.A., F.E.S.

As Neuroptera were not persistently worked for during 1921, not many records were made, and those that follow were often

noted chiefly for the sake of the dates.

Alder-flies.—Two males of Sialis lutaria, Linn. were taken in the New Forest on May 18. The dusky S. fuliginosa, Pict., which is a less common and somewhat later insect, I met with first on June 1 at Blackwater in the New Forest. South took S. lutaria on June 1 at Harefield in Middlesex, and on the 14th at Padworth in Berks.

Brown Lacewings.-My first capture of the antlion-like Osmylus chrysops, Linn. was made at Queen's Bower in the New Forest on June 5, though I possibly saw one in the Forest about three weeks earlier. Two or three further examples were met with near Blackwater on June 8. These were all I saw during the season of an insect which I hoped to meet with more freely. Hemerobius micans, Oliv. was taken near Withybed Bottom at Stony Cross Plain in the New Forest on Aug. 4. My first experience with H. stigma, Steph. in 1921 occurred on Jan. 13, when one was captured flying on Esher Common, Surrey; another was taken there on Jan. 24. About twelve were secured on Jan. 30, when I visited the Common again with C. L. Withycombe; these were obtained by tapping small Scotch Firs over a beating-tray. On Feb. 4 a male was taken on Esher Common. On Feb. 21 two were beaten from Scotch Firs on the same common, and on March 10 one only was captured there in the same way. On March 22 I visited Stanmore Common, Middlesex, with South. Only one Conifer was met with, but from this a few examples of

Hemerobius were beaten; though of a rather dark and well-

marked form, I take them all to be H. stigma.

On April 4 I obtained a Hemerobius larva from a Scotch Fir on Esher Common. In colour the thorax was bluish-white, with two small semilunar black marks, one on each side of the pronotum. The abdomen was yellowish-white with two longitudinal rows of dark blotches—one on each side—and a fine mid-dorsal black line. The larva was placed, with some Scotch Fir aphides, in a glass-bottomed box, where it began to spin up on April 6. Though the pale yellow cocoon, made between two "needles," was very thin, I could not tell when the larva became a pupa, but I think not at once. A nice image of H. concinnus, Steph. appeared during the daytime on May 2. The pupa, of course, leaves the cocoon before the final change, and in this case did so without revealing clearly the place of exit. The pupal skin was a very perfect one. South captured this species at Padworth on June 12.

Green Lacewings.—Chrysopa tenella, Schn. was captured at Brondesbury, Middlesex, on June 1 (South). C. vulgaris, Schn. was met with three times in the New Forest—on July 15 and 25 and on Aug. 31. Of C. prasina, Ramb. (= aspersa, Wesm.) one was taken at Esher Common on June 14 and two on June 22. Withycombe took his first specimen of the blue-green species, C. perla, Linn. on May 21; I captured specimens on June 16 in Juniper Valley, Boxhill, Surrey. South secured two Nothochrysa capitata, Fabr. on or near Guelder Rose, Viburnum opulus, Linn. at Padworth on June 12.

Dusty-wings.—I have but one note on these tiny Neuroptera with powdered wings—a capture of Semidalis aleurodiformis, Steph., on the wing at Ramnor in the New Forest on June 5.

Scorpion-flies.—My first experience of the genus Panorpa was on May 23, when a female P. germanica, Linn. and a teneral female P. communis, Linn. were captured in the New Forest. By the 24th they seemed to be common, and a male P. communis was taken, a male P. germanica being secured on May 29. On May 31 Panorpas appeared to be very plentiful in the Forest, as they were again on June 5. Their flight is usually clumsy and of short duration, often nearly in a straight line. They quickly fly off, or drop, when disturbed. On July 25 at Denny Bog a female P. communis, a large and bright specimen but with wingtips damaged, when disturbed went down into the rank herbage, and being followed tried persistently to hide in the deep grassy growth at the base of the taller herbage—a frequent proceeding of this species and its congener P. germanica. South took males of P. communis and P. germanica at Padworth from June 12-14.

Kingston-on-Thames; Feb. 4, 1922.